CLAIMS

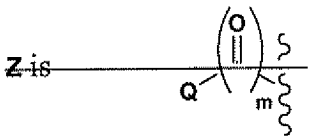
Please cancel Claims 16, 18, 20, 22, 24, 42-47, 49-51, and 70-87. Please amend claims 1 and 2.

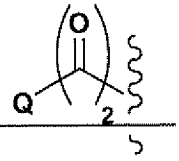
The complete set of claims after the cancellation/amendment is:

1 (currently amended). A compound of Formula I, including pharmaceutically acceptable salts thereof,

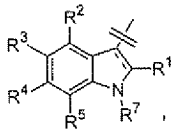
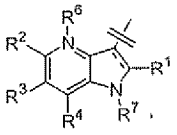
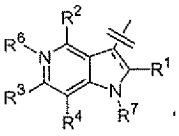
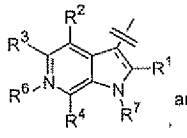
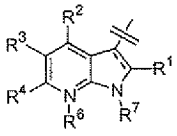
(I)

wherein:

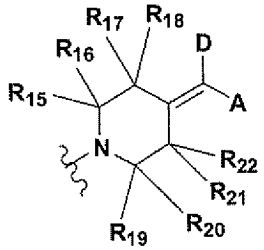
~~Z is~~  ;

Z is  ;

Q is selected from the group consisting of:

 ,  ,  ,  and  ;

-W- is



R^1, R^2, R^3, R^4, and R^5, are independently selected from the group consisting of hydrogen, halogen, cyano, nitro, $COOR^8$, XR^9, and B;

~~m is 1 or 2;~~

R^6 is O or does not exist;

R^7 is $(CH_2)_nR^{10}$;

n is 0-6;

R^{10} is selected from the group consisting of H, (C_{1-6})alkyl, -C(O)-(C_{1-6})alkyl, C(O)-phenyl and $CONR^{11}R^{12}$;

R^{11} and R^{12} are each independently H, (C_{1-6})alkyl or phenyl;

- - represents a carbon-carbon bond or does not exist;

D is selected from the group consisting of hydrogen, (C_{1-6})alkyl, (C_{1-6})alkynyl, (C_{3-6}) cycloalkyl, halogen, cyano, $-CONR^{32}R^{33}$, -SO2 R^{32}, COR^{32}, $COOR^8$, tetrahydrofuryl, pyrrolidinyl, phenyl and heteroaryl ; wherein said (C_{1-6})alkyl, (C_{1-6})alkynyl, phenyl and heteroaryl are each independently optionally substituted with one to three same or different members selected from the group G; heteroaryl is selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, triazolyl, pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl;

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one to three same or different members selected from the group K; and heteroaryl is selected from the group consisting of pyridinyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thienyl, benzothienyl, thiazolyl, isothiazolyl, oxazolyl, benzooxazolyl, isoxazolyl, imidazolyl, benzoimidazolyl, 1H-imidazo[4,5-b]pyridin-2-yl, 1H-imidazo[4,5-c]pyridin-2-yl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, tetrazinyl, triazinyl and triazolyl;

with the proviso that when m is 1 and A is benzoimidazolyl, 1H-imidazo[4,5-b]pyridin-2-yl or 1H-imidazo[4,5-c]pyridin-2-yl, D is not –H;

R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20}, R^{21}, R^{22} are each independently selected from the group consisting of H and (C_{1-6})alkyl; wherein (C_{1-6})alkyl is optionally substituted with one to three same or different halogen, amino, OH, CN or NO_2;

B is selected from the group consisting of (C_{1-6})alkyl, (C_{3-6})cycloalkyl, $C(O)NR^{23}R^{24}$, phenyl and heteroaryl; wherein said (C_{1-6})alkyl, phenyl and heteroaryl are independently optionally substituted with one to three same or different halogens or from one to three same or different substituents selected from F; heteroaryl is selected from the group consisting of pyridinyl, pyrazinyl, pyridazinyl, pyrimidinyl, furanyl, thienyl, benzothienyl, thiazolyl, isothiazolyl, oxazolyl, benzooxazolyl, isoxazolyl, imidazolyl, benzoimidazolyl, 1H-imidazo[4,5-b]pyridin-2-yl, 1H-imidazo[4,5-c]pyridin-2-yl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, tetrazinyl, triazinyl and triazolyl;

F is selected from the group consisting of (C_{1-6})alkyl, (C_{3-6})cycloalkyl cyano, phenyl, heteroaryl, heteroalicyclic, hydroxy, (C_{1-6})alkoxy, halogen, benzyl, $-NR^{25}C(O)-(C_{1-6})$alkyl, $-NR^{26}R^{27}$, morpholino, nitro, $-S(C_{1-6})$alkyl, -SPh, $NR^{25}S(O)_2-R^{26}$, piperazinyl, N-Me piperazinyl, C(O)H, $(CH2)_nCOOR^{28}$ and $-CONR^{29}R^{30}$; wherein said (C_{1-6})alkyl, heteroaryl, or phenyl is optionally substituted with one to three same or different halogens or one to three methyl groups; heteroaryl is selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, triazolyl, pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl; heteroalicyclic is selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, N-methyl piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine and morpholine;

G is selected from the group consisting of (C_{1-6})alkyl, (C_{3-6})cycloalkyl cyano, trimethylsilyl, phenyl, heteroaryl, heteroalicyclic, hydroxy, (C_{1-6})alkoxy, halogen, benzyl, $-NR^{25}C(O)-(C_{1-6})$alkyl, $-NR^{26}R^{27}$, $-C(O)NR^{26}R^{27}$, morpholino, nitro, $-S(C_{1-6})$alkyl, -SPh, $NR^{25}S(O)_2-R^{26}$, piperazinyl, N-Me piperazinyl, $(CH2)_nCOOR^{28}$ and $-CONR^{29}R^{30}$; wherein said (C_{1-6})alkyl, heteroaryl, or phenyl is optionally substituted with one to three same or different halogens or one to three methyl groups; heteroaryl is selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, triazolyl, pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl; heteroalicyclic is

selected from the group consisting of aziridine, azetidine, pyrrolidine, piperazine, N-methyl piperazine, piperidine, tetrahydrofuran, tetrahydropyran, azepine and morpholine;

K is selected from the group consisting of (C_{1-3})alkyl, hydroxy, (C_{1-3})alkoxy, halogen and $-NR^{26}R^{27}$; wherein said (C_{1-6})alkyl is optionally substituted with one to three same or different halogens;

R^8, R^9 and R^{28} are selected from the group consisting of hydrogen and (C_{1-6})alkyl;

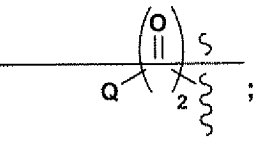
X is selected from the group consisting of NR^{31}, O and S;

R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{29}, R^{30}, R^{31} are independently selected from the group consisting of hydrogen, (C_{1-6})alkyl, (C_{1-6})alkoxy, phenyl and heteroaryl; wherein said (C_{1-6})alkyl , phenyl, and heteroaryl are independently optionally substituted with one to three same or different group J; heteroaryl is selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, triazolyl, pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl;

J is selected from the group consisting of (C_{1-6})alkyl, phenyl, heteroaryl, hydroxy, (C_{1-6})alkoxy, halogen, benzyl, $-NR^{32}C(O)-(C_{1-6})$alkyl, $-NR^{32}R^{33}$, morpholino, nitro, $-S(C_{1-6})$alkyl, -SPh, $NR^{32}S(O)_2-R^{33}$, piperazinyl, N-Me piperazinyl, $(CH2)_nCOOR^{28}$ and $-CONR^{32}R^{33}$; wherein said (C_{1-6})alkyl, heteroaryl, or phenyl is optionally substituted with one to three same or different halogens,amino, or methyl groups; heteroaryl is selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, triazolyl, pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl; and

R^{32} and R^{33} are independently selected from the group consisting of hydrogen and (C_{1-6})alkyl; wherein said (C_{1-6})alkyl is optionally substituted with one to three same or different halogen, methyl, or CF_3 groups.

2 (currently amended). A compound of claim 1 wherein:

Z is  ;

R^1 is hydrogen;

- - represents a carbon-carbon bond; and

R^6 does not exist.

3 (original). A compound of claim 2 wherein:

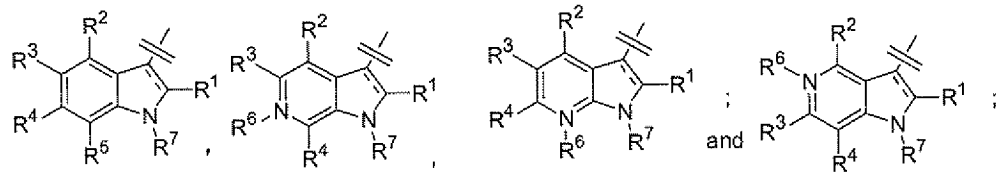
R^7 is hydrogen; and

R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20}, R^{21}, R^{22} are each independently H or methyl with the proviso that a maximum of one of R^{15}-R^{22} is methyl.

4 (original). A compound of claim 3 wherein:

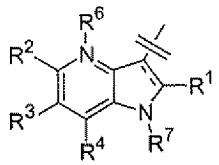
Q is a member selected from groups (A) and (B) consisting of:

(A)



provided R^2 and R^3 are each independently hydrogen, methoxy or halogen; and

(B)

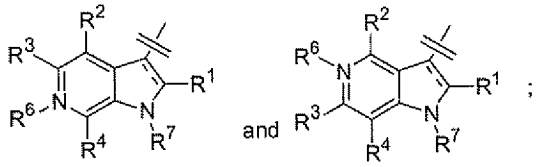


provided R^2 is hydrogen, methoxy or halogen.

5 (original). A compound of claim 4 wherein:

Q is a member selected from groups (A), (B) and (C) consisting of:

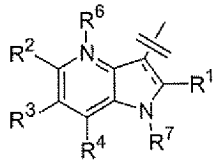
(A)



provided R^2 is hydrogen, methoxy or halogen;

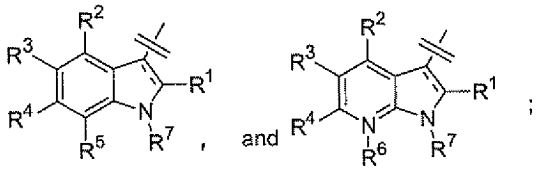
R^3 is hydrogen;

(B)



provided R^2 and R^3 are hydrogen; and

(C)

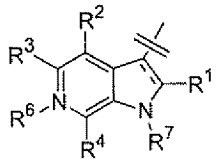


provided R^2 is hydrogen, methoxy or halogen; and

R^3 and R^4 are hydrogen.

6 (original). A compound of claim 4 wherein:

Q is



;

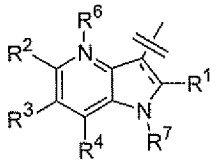
provided R^2 is hydrogen, methoxy or halogen;

R^3 is hydrogen; and

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one fluorine, hydroxy, methyl, or amino; and heteroaryl is selected from the group consisting of pyridinyl, furanyl and thienyl.

7 (original). A compound of claim 4 wherein:

Q is



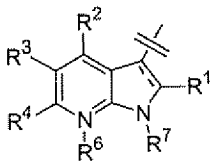
;

R^2 and R^3 are hydrogen; and

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one fluorine, hydroxy, methyl, or amino; and heteroaryl is selected from the group consisting of pyridinyl, furanyl and thienyl.

8 (original). A compound of claim 4 wherein:

Q is



;

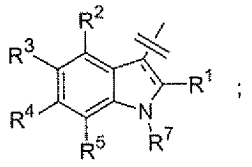
R^2 is hydrogen, methoxy or halogen;

R^3 and R^4 are hydrogen; and

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one fluorine, hydroxy, methyl, or amino; and heteroaryl is selected from the group consisting of pyridinyl, furanyl and thienyl.

9 (original). A compound of claim 4 wherein:

Q is:



;

R^2 is hydrogen, methoxy or halogen;
R^3 and R^4 are hydrogen; and

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one flourine, hydroxy, methyl, or amino; and heteroaryl is selected from the group consisting of pyridinyl, furanyl and thienyl.

10 (original). A compound of claim 3 wherein:

B is selected from the group consisting of -C(O)$NR^{23}R^{24}$, phenyl and heteroaryl; wherein said phenyl or heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

11 (original). A compound of claim 5 wherein:

B is selected from the group consisting of -C(O)$NR^{23}R^{24}$, phenyl and heteroaryl; wherein said phenyl or heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

12 (original). A compound of claim 6 wherein:

B is selected from the group consisting of -C(O)$NR^{23}R^{24}$, phenyl and heteroaryl; wherein said phenyl or heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

13 (original). A compound of claim 7 wherein:

B is selected from the group consisting of -C(O)$NR^{23}R^{24}$, phenyl and heteroaryl; wherein said phenyl or heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

14 (original). A compound of claim 9 wherein:

B is selected from the group consisting of -C(O)$NR^{23}R^{24}$, phenyl and heteroaryl; wherein said phenyl or heteroaryl is optionally substituted with one to three same or different halogens or from one to two same or different substituents selected from the group F.

15 (original). A compound of claim 10 wherein:

B is -C(O)$NR^{23}R^{24}$.

16 (cancelled).

17 (original). A compound of claim 11 wherein:

B is -C(O)$NR^{23}R^{24}$.

18 (cancelled).

19 (original). A compound of claim 12 wherein:

B is -C(O)$NR^{23}R^{24}$.

20 (cancelled).

21 (original). A compound of claim 13 wherein:

B is -C(O)$NR^{23}R^{24}$.

22 (cancelled).

23 (original). A compound of claim 14 wherein:

B is -C(O)$NR^{23}R^{24}$.

24 (cancelled).

25 (original) A compound of claim 3 wherein:

D is selected from the group consisting of hydrogen, (C_{1-6})alkyl, (C_{1-6})alkynyl, (C_{3-6}) cycloalkyl, halogen, cyano, -$CONR^{32}R^{33}$, -SO2 R^{32}, COR^{32}, $COOR^{8}$, tetrahydrofuryl, pyrrolidinyl, phenyl and heteroaryl ; wherein said (C_{1-6})alkyl, (C_{1-6})alkynyl, phenyl and heteroaryl are each independently optionally substituted with one to three same or different members selected from the group G; heteroaryl is (1) a five membered ring selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, and triazolyl; or (2) a six membered ring selected from the group consisting of pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl; and

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one flourine, hydroxy, methyl, or amino; and heteroaryl is selected from the group consisting of pyridinyl, furanyl and thienyl.

26 (original). A compound of claim 5 wherein:

D is selected from the group consisting of hydrogen, (C_{1-6})alkyl, (C_{1-6})alkynyl, (C_{3-6}) cycloalkyl, halogen, cyano, -$CONR^{32}R^{33}$, -SO2 R^{32}, COR^{32}, $COOR^{8}$, tetrahydrofuryl, pyrrolidinyl phenyl and heteroaryl ; wherein said (C_{1-6})alkyl, (C_{1-6})alkynyl, phenyl and heteroaryl are each independently optionally substituted with one to three same or different members selected from the group G; heteroaryl is (1) a five membered ring selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, and triazolyl or (2) a six membered ring selected from the group consisting of pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl; and

A is selected from the group consisting of phenyl and heteroaryl; wherein said phenyl and heteroaryl are each independently optionally substituted with one flourine, hydroxy, methyl, or amino; and heteroaryl is selected from the group consisting of pyridinyl, furanyl and thienyl.

27 (original). A compound of claim 25 wherein:

D is (C_{1-6})alkyl, wherein said (C_{1-6})alkyl is optionally substituted with one to three same or different members selected from the group G.

28 (original). A compound of claim 26 wherein:
D is (C_{1-6})alkyl, wherein said (C_{1-6})alkyl is optionally substituted with one to three same or different members selected from the group G.

29 (original). A compound of claim 25 wherein:

D is (C_{1-6})alkynyl, wherein said (C_{1-6})alkynyl is optionally substituted with one of the group G.

30 (original). A compound of claim 26 wherein:

D is (C_{1-6})alkynyl, wherein said (C_{1-6})alkynyl is optionally substituted with one of the group G.

31 (original). A compound of claim 26 wherein:

D is (C_{3-6}) cycloalkyl.

32 (original). A compound of claim 26 wherein:

D is -$CONR^{32}R^{33}$.

33 (original). A compound of claim 26 wherein:

D is -SO_2 R^{32}.

34 (original). A compound of claim 26 wherein:

D is halogen.

35 (original). A compound of claim 3 wherein:

D is phenyl wherein said phenyl is optionally substituted with one to three same or different members selected from the group G.

36 (original). A compound of claim 5 wherein:

D is phenyl wherein said phenyl is optionally substituted with one to three same or different members selected from the group G.

37 (original). A compound of claim 26 wherein:

D is phenyl wherein said phenyl is optionally substituted with one to three same or different members selected from the group G.

38 (original). A compound of claim 37 wherein:

D is phenyl wherein said phenyl is optionally substituted with one to two same or different members selected from the group G; and

A is phenyl or pyridyl.

39 (original). A compound of claim 38 wherein:

D is 3,5-difluoro phenyl.

40 (original). A compound of claim 38 wherein:

D is 3 hydroxymethyl phenyl.

41 (original). A compound of claim 38 wherein:

D is 3-methyl-phenyl where the methyl is substituted by a single heteroaryl ; wherein said heteroaryl, is optionally substituted with one to three same or different halogens or one to three methyl groups; heteroaryl is selected from the group consisting of furanyl, thienyl, thiazolyl, isothiazolyl, oxazolyl, isoxazolyl, imidazolyl, oxadiazolyl, thiadiazolyl, pyrazolyl, tetrazolyl, triazolyl, pyridinyl, pyrazinyl, pyridazinyl, and pyrimidinyl.

42 (cancelled).

43 (cancelled).

44 (cancelled).

45 (cancelled).

46 (cancelled).

47 (cancelled).

48 (original). A compound of claim 7 wherein:

A is phenyl or pyridyl.

49 (cancelled).

50 (cancelled).

51 (cancelled).

52 (original). A compound of claim 9 wherein:

A is phenyl or pyridyl.

53 (original). A compound of claim 43 wherein:

D is oxadiazolyl independently optionally substituted with one to two same or different members selected from the group G.

54 (original). A compound of claim 44 wherein:

D is oxadiazolyl independently optionally substituted with one to two same or different members selected from the group G.

55 (original). A compound of claim 43 wherein:

D is oxazolyl independently optionally substituted with one to two same or different members selected from the group G.

56 (original). A compound of claim 44 wherein:

D is oxazolyl independently optionally substituted with one to two same or different members selected from the group G.

57 (original). A compound of claim 43 wherein:

D is pyrazolyl independently optionally substituted with one to two same or different members selected from the group G.

58 (original). A compound of claim 44 wherein:

D is pyrazolyl independently optionally substituted with one to two same or different members selected from the group G.

59 (original). A compound of claim 6 wherein:

D is oxadiazolyl independently optionally substituted with one halogen or methyl group;

A is pyridyl or phenyl; and

B is heteroaryl optionally substituted with one or two groups F.

60. (original). A compound of claim 6 wherein:

D is oxadiazolyl independently optionally substituted with one halogen or methyl group;

A is pyridyl or phenyl; and
B is imidazolyl, triazolyl, pyrazolyl, or tetrazolyl, each independently optionally substituted with one or two groups F.

61 (original). A compound of claim 44 wherein:

D is oxadiazolyl independently optionally substituted with one to two same or different members selected from the group G.

62 (original). A compound of claim 5 wherein:

B is –C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to two substituent selected from the group consisting of halogen, (C_1-C_6 alkyl), amino, -NHC(O)-(C_1-C_6 alkyl), -methoxy, -COOH, -CH_2COOH, -CH_2CH_2COOH, -NH(C_1-C_6 alkyl) and -N(C_1-C_6 alkyl)$_2$.

63 (*original*). A *compound of claim 6 wherein:*

B is –C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to two substituents selected from the group consisting of halogen, (C_1-C_6 alkyl), amino, -NHC(O)-(C_1-C_6 alkyl), -methoxy, -COOH, -CH_2COOH, -CH_2CH_2COOH, -NH(C_1-C_6 alkyl) and -N(C_1-C_6 alkyl)$_2$.

64 (original). A compound of claim 7 wherein:

B is –C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to two substituents selected from the group consisting of halogen, (C_1-C_6 alkyl), amino, -NHC(O)-(C_1-C_6 alkyl), -methoxy, -COOH, -CH_2COOH, -CH_2CH_2COOH, -NH(C_1-C_6 alkyl) and -N(C_1-C_6 alkyl)$_2$.

65 (original). A compound of claim 9 wherein:

B is –C(O)NH-heteroaryl wherein said heteroaryl is optionally substituted with one to two substituents selected from the group consisting of halogen, (C_1-C_6 alkyl), amino, -NHC(O)-(C_1-C_6 alkyl), -methoxy, -COOH, -CH_2COOH, -CH_2CH_2COOH, -NH(C_1-C_6 alkyl) and -N(C_1-C_6 alkyl)$_2$.

66 (original). A compound of claim 5 wherein:

B is –C(O)NH_2 or –C(O)$NHCH_3$.

67 (original). A compound of claim 6 wherein:

B is –C(O)NH_2 or –C(O)$NHCH_3$.

68 (original). A compound of claim 7 wherein:

B is –C(O)NH_2 or –C(O)$NHCH_3$.

69 (original). A compound of claim 9 wherein:

B is $-C(O)NH_2$ or $-C(O)NHCH_3$.

70 (cancelled).

71 (cancelled).

72 (cancelled).

73 (cancelled).

74 (cancelled).

75 (cancelled).

76 (cancelled).

77 (cancelled).

78 (cancelled).

79 (cancelled).

80 (cancelled).

81 (cancelled).

82 (cancelled).

83 (cancelled).

84 (cancelled).

85 (cancelled).

86 (cancelled).

87 (cancelled).

88 (original). A pharmaceutical formulation which comprises an antiviral effective amount of a compound of Formula I, including pharmaceutically acceptable salts thereof, as claimed in claim 1, and a pharmaceutically acceptable carrier.

89 (original). The pharmaceutical formulation of claim 88, useful for treating infection by HIV, which additionally comprises an antiviral effective amount of an AIDS treatment agent selected from the group consisting of:

(a) an AIDS antiviral agent;

(b) an anti-infective agent;

(c) an immunomodulator; and

(d) HIV entry inhibitors.

90 (original, withdrawn). A method for treating mammals infected with a virus, comprising administering to said mammal an antiviral effective amount of a compound of Formula I, including pharmaceutically acceptable salts thereof, as claimed in claim 1.

91 (original, withdrawn). The method of claim 90, comprising administering to said mammal an antiviral effective amount of a compound of Formula I in combination with an antiviral effective amount of an AIDS treatment agent selected from the group consisting of: an AIDS antiviral agent, an anti-infective agent, an immunomodulator and HIV entry inhibitors.

92 (original, withdrawn). The method of claim 90 wherein the virus is HIV.

93 (original, withdrawn). The method of claim 91 wherein the virus is HIV.